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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,949

09/12/2005

Motofumi Sogo

045258-2

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7590

01/06/2009

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

01/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,949	Applicant(s) SOGO ET AL.	
	Examiner Heidi M. Eide	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/20/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, claims 1-9 and 14-15 in the reply filed on September 5, 2008 is acknowledged.
2. Claims 10-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected groups, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 5, 2008.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claim 1 is objected to because of the following informalities: It is believed that in line 8 of the claim "hone" is in error for --bone--. Appropriate correction is required.

Claim 8 is objected to because of the following informalities: It is believed that in line 3 of the claim "where re there" is in error for --where there--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Claim 9 recites the limitation "the three dimensional data", "said received three-dimensional data" and "said stored three-dimensional data in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 14-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The applicant claims a computer program and a computer readable medium in the preamble of the claim which is non-statutory subject matter. Further applicant does not specifically claim any structure in either of the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 7-9 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scherer et al. 6,319,006 (Scherer) in view of Klein et al. 5,967,777 (Klein) further in view of Ranalli 2001/0053510 (Ranalli). Scherer teaches an artificial tooth root implantation position determining instrument for determining the implantation position of an artificial tooth root which supports an artificial tooth that supports the lost portion of the dentition, the instrument comprising dentition data acquisition means for or acquiring three dimensional data relating to the dentition, jaw bone acquisition means for or acquiring three dimensional data relating to the jaw bone connected to the dentition, combining means for combining the three-dimensional data relating to dentition acquired by the dentition data acquisition means and the three-dimensional data relating to the jaw bone acquired by the jaw bone data acquisition means and calculating means for calculating the implantation position (col. 3, ll. 60-67, col. 4, ll. 1-2 and abstract). Scherer further teaches occlusion information creating means and the 3-D data are stored (col. 3, ll. 55-59, col. 4, ll. 29-36). Scherer does not specifically teach an artificial tooth data creating means for creating artificial tooth data indicating an artificial tooth that supplements the lost portion of said dentition indicated by the combined data for dentition and jaw bone created by said combining means and

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wherein the artificial tooth data creating means are constructed so as to create the artificial tooth data on the basis of the remaining teeth or artificial teeth in use and candidate receiving means for receiving a plurality of candidates for the implantation position of said artificial tooth root on the basis of combined data to which artificial tooth data created by said artificial tooth data creating means is added and determining means for determining one implantation position from the candidates received by said candidate receiving means. Klein teaches an artificial tooth data creating means for creating artificial tooth data indicating an artificial tooth that supplements the lost portion of said dentition indicated by the data for dentition and jaw bone (see abstract and col. 1, ll. 13-21). Klein further teaches the instrument is carried out on a program, which it was well known in the art to be stored on a computer readable medium. Klein does not specifically teach the artificial tooth creating means is constructed to create the artificial tooth data on the basis of the remaining teeth or artificial teeth in use, however, it is capable of functioning as claimed, therefore the claimed limitations are met. It would have been obvious to one having ordinary skill in the art at the time of the invention of modify Scherer in view of Klein in order to the optimum results. Ranalli further teaches candidate receiving means for receiving a plurality of candidates for the implantation position of said artificial tooth root on the basis of the data and determining means for determining one implantation position from the candidates received by said candidate receiving means (par. 61, 65-67). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Scherer in view of Klein further in view of Ranalli in order to ensure the most accurate position.

Claims 2-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scherer et al. 6,319,006 (Scherer) in view of Klein et al. 5,967,777 (Klein) in view of Ranalli 2001/0053510 (Ranalli) as applied to claim 1 above, and further in view of Holberg 2005/0143967. Scherer in view of Klein in view of Ranalli teach the invention as discussed above, however, does not teach the instrument comprises mechanical evaluation factor calculating means for calculating the mechanical evaluation factors generated in the respective vicinities by a preset occlusion force for the implantation positions respectively indicated by each of the candidates received by said candidate receiving means, and said determining means are constructed so that the implantation position in which the mechanical evaluation factor calculated by said mechanical evaluation factor calculating means shows a minimum value is determined and wherein said three-dimensional data relating to the jaw bone includes hardness information for said jaw bone, and said mechanical evaluation factor calculating means are constructed so that said mechanical evaluation factors are calculated on the basis of said hardness information and mastication information acquisition means. Holberg teaches teach the instrument comprises mechanical evaluation factor calculating means for calculating the mechanical evaluation factors generated in the respective vicinities by a preset occlusion force and said three-dimensional data relating to the jaw bone includes hardness information for said jaw bone, and said mechanical evaluation factor calculating means are constructed so that said mechanical evaluation factors are calculated on the basis of said hardness information and mastication information acquisition means (par. 1, 6, 14 and 50-52). Holberg does not specifically teach

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generating the occlusion force for all of the candidates of implant positions and determining a minimum value, however, the evaluation means if capable of functioning as claimed, therefore the claimed limitations are met. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Scherer in view of Klein in view of Ranalli further in view of Holberg in order to ensure the best results.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heidi M. Eide whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide**/John J Wilson/**

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Examiner
Art Unit 3732

Primary Examiner
Art Unit 3732

/Heidi M Eide/
Examiner, Art Unit 3732

01/02/2009